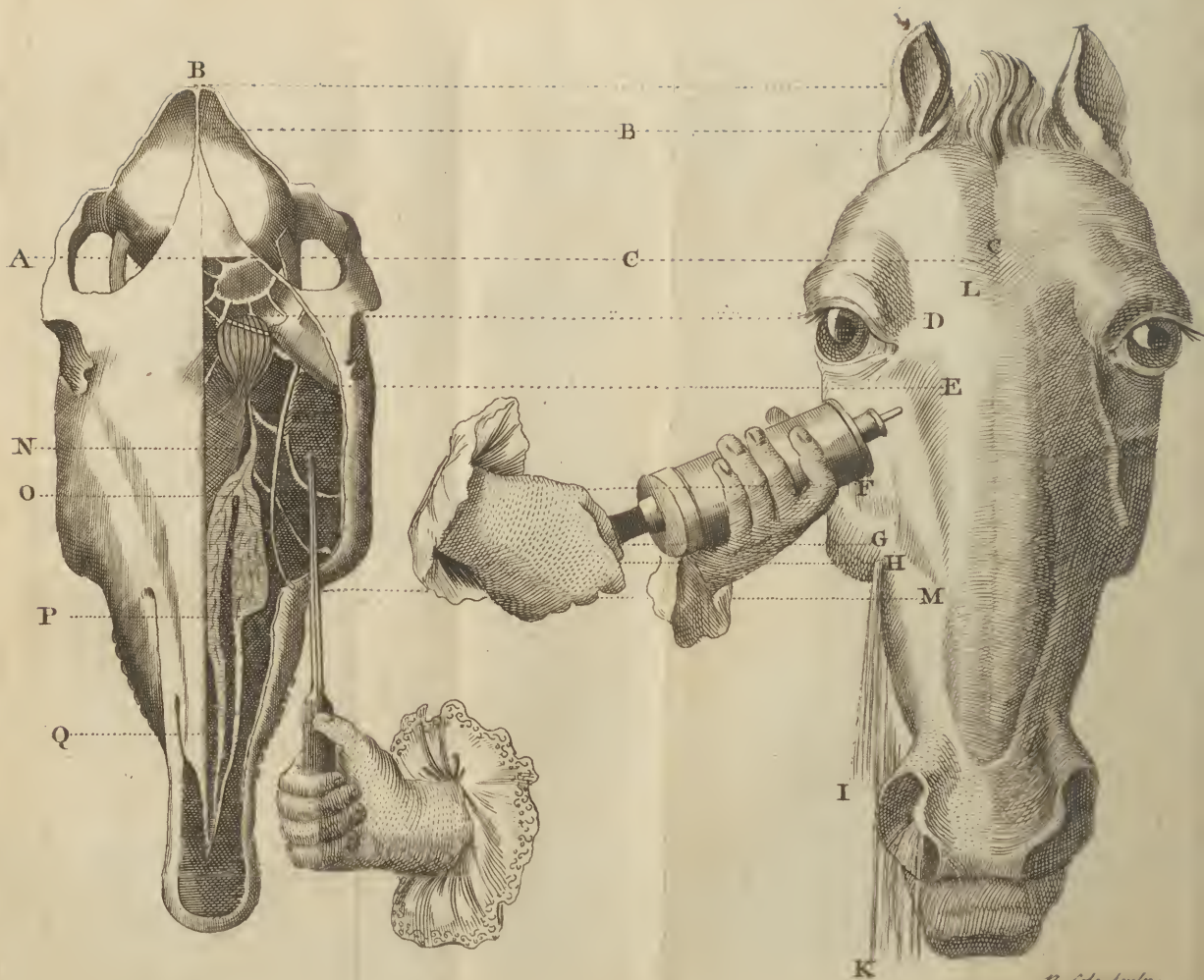




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Armagnac
A
TREATISE

Upon the true Seat of the
GLANDERS in Horses,
Together with the
METHOD of CURE.

Dedicated to His Highness Prince
CHARLES of LORRAIN, Count of
Armagnac, Peer and Grand Master of
the Horse of *France*, &c.

By Mons. *DE LA FOSSE*, Master
Farrier of *Paris*, and Farrier to the
King's Stables.

With CUTS.

To which is annexed,
A COPY of the Approbation of the *Royal*
Academy of Sciences, printed at *Paris* 1749.

The Translation and Notes by H. BRACKEN,
M. D.

L O N D O N:
Printed for T. OSBORNE, in *Gray's-Inn*.
MDCCLI.

[Price bound 1 s.]

TO HIS HIGHNESS

Prince CHARLES
of Lorrain,

Count *d'Armagnac* and *Char-*
ny, Peer and Grand Master
of the Horse, Knight of
the King's Orders, Lieute-
nant-General of his Armies,
Governor-General of the
Province of *Picardy*, *Ar-*
tois, *Boulognois*, and the
Re-conquered Provinces,
Hereditary Seneschal of *Bo-*
logne, Governor of the
Town and Citadel of *Mont-*
reuil upon the Sea.

A 2

May

May it please your Highness,

THE *Academy of Sciences* hath certified the Truth of my Discoveries, relating to the *Glanders* in Horses ; but I must submit the Usefulness of them to your Highness's Judgment. It is by your Highness's great Care, that the King's Stud is, at this Time, superior to all the *Studs* in
in

in *Europe*; Your Highness's Attention, in this Respect, is a Means of preserving, without Danger, the Health of one of the greatest Kings in the Universe, in an Exercise that will prolong his Days for the Good of his Subjects: Be pleased, therefore, to account me amongst the Number of those, who have taken Pains for the Preservation of an Animal, from which *France* has experienced so much Service. Your Highness's Honour will protect all those who are zealous for the Good of the *Cavalry*; and therefore I am the more emboldened to offer this Piece to your Highness's Perusal. I

[vi]

have been as concise as I possibly could, and am, with the greatest Duty and Respect,
Your Highness's,

Very Humble

and Obedient Servant,

LA FOSSE.

P R E F A C E.

I Thought it might not prove unprofitable to the Publick, to make Historical Inquiries into Antiquity, in order to discover the Origin and Progress of the Distemper called the *Glanders* in Horses; but I have been very much deceived in my Attempt, and great was my Surprise, when I found that such Distemper was not only unknown to the Ancients, but that it was altogether a new Disorder, and did not appear in *Europe* till about the Year 1494.

All the *Greek* Authors, who have wrote upon rural Subjects, and the Diseases incident to Horses, Mules, &c. have been collected and compiled by *Cassianus Bassus*, and this *Collection*, published by *Needham* under the Title *Geoponicorum sive de Re Rustica*, is the sole and only Work of the *Greeks* that remains to this Day.

Not one of these Authors speaks a Word of the Glanders in Horses, and it is scarce possible that *Absyrtus*, who hath left us in this Collection a Treatise of the Distempers incident to Horses, Mules, Asses, and Camels, under the Title *Malo Medicus Miles, de Curâ Equorum*,

quorum, should have neglected to speak of it, if it had been known to him.

It is very notorious, that great and terrible Havock is made by the *Glanders* amongst Horses in Armies; and it is very certain, that in the Wars of *Europe*, for two Hundred Years by-past, great Numbers of Horses have been lost thro' this Distemper.

Absyrtus served under *Constantine* in the Wars of *Scythia*, and, if this Distemper had been known to him, ought not he to have described it? Especially as he gave himself up to the Study of Medicines proper for Horses, being Knight Marshal

to the Emperor and the Army.

Cato, who commanded in the Wars against *Hannibal*, where certainly he did not want *Cavalry*, retired from the World, and devoted himself entirely to the Improvement of his *Estate*, *Agriculture*, and the Diseases of *Brutes*. I say, this venerable old Man amused himself in writing all he knew relating to these Matters; notwithstanding which, in the Multitude of Things which he hath left us, we don't find one Word mentioned of the Glanders in Horses; therefore it is no small Wonder, that *Cato* (who lived to the Age of ninety Years) hath not given us the
History

History of a Disease, which most certainly must have interested him, either in the Wars, or in his private Retirement.

The same Reasoning subsists, when we find that *Columella* is silent upon this Head, in his Treatise of Diseases in Horses, stiled *de Curâ Equorum*.

Virgil, who seems to have taken a great deal of Pains in describing the Diseases to which Animals are subject, mentions nothing of the *Glanders*; notwithstanding he hath entered into a circumstantial Detail of many Distempers affecting *Sheep, Cows, &c.* If he had understood the *Glanders*, ought

not he to have fung of the Ravage it makes? Ought he to have let this escape him? Seeing the Symptoms, the Contagion, &c. would have enriched his Poem? Behold, therefore, the *Ancients* ignorant of the Distemper called the Glanders in Horses, in the fourteenth Century, in which *Absyrtus* was living.

Nor has any Author, from that Time until the fifteenth Century, spoken of it.

(a) 'Twas at the Siege of *Naples*, after the Arrival of the

(a) I believe that the *Glanders* was a Distemper amongst Horses before the Siege of *Naples*, though it has not been properly described by Authors, no more than the *Lues Venerca*,

the *Spaniards* from their Discoveries in *America*, that the Glanders in Horses appeared for the first Time.

Veneræa, or *French Pox*, which some of our celebrated Physicians have mentioned to be a new Disease ; because I can easily shew, that both the one and the other must have subsisted before the Return of *Christopher Columbus* from *New Spain* to the Siege of *Naples* ; at which Siege, it seems, we are given to understand, that these Distempers were first discovered.

The *Small-pox*, indeed, is a new Disease, being unknown to *Galen* and *Hippocrates* ; but this Disease is communicated by Contagion, whereas the other two, especially the latter, is communicated by actual Contact ; and, as to the Origin of it, it must have subsisted ever since a Number of Males copulated with one Female ; for by frequent Friction an Inflammation is produced, and Ulcers are formed, whereby the Venom is heightened ; and, if we add to this the Admixture and Corruption of different *Sperm* lodged in the *Vagina Uteri*, we may easily account for the Propagation and Spreading of the Distemper.

Parazæz

Paraxzez is the first Author who has mentioned it, he himself was at the Siege; and the *Spanish* Authors are the first who have given us the History of this Disease, which they term *Muorino*.

INTRODUCTION.

Nothing has been more wanted, nor is there any Thing more to be wished for, than that we could arrive at such a Perfection in the Art of *Physic* and *Surgery*, or what is commonly stiled the *Art of Healing*, as to be able to distinguish, with better Certainty, the Difference of Distempers in their first Stages; and that a happy Guess was not, even in this our Day, so great a Part in the Character of a good *Physician*.

The

The Errors in the Practice of Physic, and, no doubt, the Farrier's Practice suffers under the like Misfortune, *viz.* from a Defect of Knowledge in Anatomy and the animal Oeconomy ; I say, the latter especially has, till of late Years, been in the Hands of the ignorant and unknowing Part of Mankind ; nor has any one Author of ancient Date writ upon the Subject with the least Judgment: I mean, with respect to the necessary Knowledge requisite in treating of an *animal Machine*, and prescribing Medicines and outward Applications for removing the Disorders

orders to which animal Bodies are incident.

In fine, The ancient Writers in the Science of Farriery had such obscure *Terms* and *misapplied Descriptions*, that scarce one Symptom is explained ; and the Disease itself was so little known to them, that it is frequently miscalled by one of it's Symptoms. We cannot wonder therefore, that more proper Indications of Cure are not laid down, since the Nature of Diseases was so little understood, and the Ways by which they go off were so little known ; upon which Account the *Event* of Distempers was always *doubtful* and often *fatal*.
Con-

Contagious Diseases, indeed, have always been looked upon as a certain Stumbling-block in the Physician's Way, which his Art is at a Loss to remove. Such a prodigious Variety of Symptoms, such strange and unexpected Effects, are observable in Distempers really and truly contagious, that they have been deemed a Scourge of the *Almighty*, to serve as a Punishment where it falls, and as a Lesson of Humility to Mankind. This, I say, was the Notion formerly, and seems yet the present Subterfuge of those Physicians, who will not own and acknowledge their Ignorance of reducing the
 Causes

Causes of them, and the curative Indications, to mathematical and mechanical Principles.

The present reigning Distemper amongst the Horned Cattle sufficiently evinces the Truth of my Assertion; for no one Method of Cure has yet been pointed out, that has had the wished for Success; and therefore, when any Country is afflicted with such a *malignant, contagious, and pestilential Fever*, I say, whether this happens amongst Human or Brute Creatures, the only true Method is to separate the sick from the sound Animals; and, if, when the present Distemper begun amongst the Cattle in
the

the *South*, every Beast had been destroyed, as soon as the real Symptoms of it had been observed to shew themselves, it is my sincere Opinion, an entire Stop had long ago been put to it; whereby many thousand Cattle might have been saved alive, and many Farmers kept from Ruin.

I have mentioned contagious Distempers, because *Monf. La Fosse*, in the following Pages, imagines the Glanders in Horses contagious or catching, though I very much dissent from his Notion; for, if this was the Case, we should see most of our Horses in the Kingdom Running at the Nose and Glandered;

Glandered ; however, as to the Whole of his Performance, I have considered it, and truly translated it, as it may be of great Use to the Public in general, and more especially to the Gentlemen of the Horse in the Army in particular, with Relation to curing the *Glanders*, to which Disorder surfeited Horses are most subject.

Mr *William Gibson*, late of *Duke-street, Grosvenor-square*, in *London*, has lately published a Book, intituled, *A new Treatise on the Diseases in Horses*, which is sold at a Guinea ; but the Cuts, representing the *Anatomy* of a Horse, are not by far so well designed, as those of
Mr

Mr *Snape*; wherefore, I am now writing a *Comment* upon each Chapter of *Snape's Anatomy of a Horse*, and shall briefly subjoin an Account of the Distempers to which the several Parts of this Creature are subject, and also point out the proper Methods of Cure: All which, I flatter myself, I shall be able to perform upon the Principles of sound Philosophy and right Reasoning, without that most tedious Prolixity and injudicious Method of prescribing, so frequently observed in Authors, whose Education has not been adequate to the Subject they have treated upon. And this Paraphrase,

phrafe, &c. designed to be printed for Mr *Osborne* in *Gray's-Inn, London*, I think will be the last I shall ever publish upon the Distempers, &c. in Horses; for, after I have performed this, I intend to shew the World, that I am as well qualified to write upon Distempers affecting human Bodies, as I hope they have found me in respect to Horses; notwithstanding I have now and then had a little *Dirt* thrown upon me by the dissingenuous and unlearned Men of my Profession, for concerning myself, or employing my Pen so low as to write
about

about Horfes; therefore I ſhall
conclude with *Horace*,

——— *Si quid novisti rectius*
istis,
Candidus imperti; ſi non, his
utere mecum.

A
T R E A T I S E
U P O N T H E
Glanders in Horses, &c.

AS the Gentlemen of the
Royal Academy of Sciences
(who are always attentive
to the Proposals which tend
to the Advancement of Knowledge
in all it's Branches, and to Discover-
ies which may become useful to the
Publick) have apparently, for my
further Encouragement, received
the Memorial which I gave them
relating to the *Glanders* in Horses,
and that too in a very kind Manner;
I cannot therefore better return my
Thanks to this illustrious Society,
B than

than in fulfilling it's Views for the Benefit of Mankind.

I shall now proceed to give the History of this direful Malady, to the End that all the World may have it in their Power to make the necessary Experiments for it's Cure; and I am of Opinion, that I shall fulfil my Duty, as a good Citizen, and the Task which I undertake, as a faithful Author, if I demonstrate the Truth of the *three* following *Propositions*, (*viz.*)

First, That the erroneous and whimsical Ideas which have been entertained even to this Time, relating to the Cause and Seat of the *Glanders* in Horses, have been the Source and Occasion of different Treatments, which have never cured one Horse that was really Glandered.

Secondly, That the real and true Seat of this Disease is in the *Membrana*

brana Pituitaria, which spreads itself as a Lining within the Nostrils.

Thirdly, That the best Method of Cure is by Injection, through a Hole made by the Assistance of the Instrument called the *Trepan*.

FIRST PROPOSITION.

THAT the erroneous and whimsical Ideas which have been entertained even to this Time, relating to the Cause and Seat of the *Glanders* in Horses, have been the Source and Occasion of different Treatments, which have never cured one Horse that was really Glandered.

Monfieur *Solleysel*, an Author so much followed in *France*, and so esteemed by Foreigners, that his Book has been translated into almost all the Languages in *Europe*, defines the Cause and Seat of the *Glanders*, in the following Terms :

“ The Glanders is a Discharge
 “ of a great Quantity of Humours
 “ by the Nostrils, and these Hu-
 “ mours have their Origin, some-
 “ times in the *Spleen*, almost always
 “ in the *Lungs*, sometimes in the
 “ *Liver* and *Kidnies*; these Parts, by
 “ the Way of the *Cæliac Vein*, and
 “ the Conduits destined for Respi-
 “ ration, discharge the most thin
 “ and subtil Humours, and, by the
 “ Wind-pipe also, those Humours
 “ which are of a thicker Consist-
 “ ence; which latter are retained
 “ amongst the small Bones of the
 “ lower Jaw, and from thence af-
 “ fect the *Glands*, called *Parotid*
 “ *Glands*, below the Ears and near
 “ the lower Jaw. Hence the Mat-
 “ ter which has been retained for
 “ some Time, is afterwards discharg-
 “ ed by the Nostrils, and discovers
 “ to us the Distemper. He farther
 “ says, that, as the *Glanders* is caused
 “ by an Ulcer in the *Lungs*, the
 “ Cure

“ Cure is impracticable; because
 “ (a) there are none (save God
 “ alone) that can restore a Part that
 “ is consumed.”

The Authors of the new Piece,
 stiled *The Perfect Farrier*, say,
 “ That the Nature and Cause of
 “ the Glanders in Horses proceed
 “ from a thickened watery *Lymph*

(a) I dare say, though *Monf. Solleysel* would not allow us to make new, we can mend old and abraded Parts of the Body, so long as what we term *Nature*, or the *Constitution*, is not quite destroyed, and the Texture and Crasis of the Blood intirely broken, by the Solids not performing their destined Functions.

“ God never made his Work for Man to
 “ mend,” is, indeed, a Saying of the late justly admired *Mr Pope*; but no doubt, he means, that, if a Link of Nature’s Chain was broken, we could not piece it; which has nothing to do with the Art of Healing inward or outward Wounds, for this we see done every Day, though we don’t pretend to make a Man or Horse a new Pair of Lungs when the old ones are quite decayed; no, no, this we must acknowledge is a Work in the Power only of the first *Protoplast*, the great Creator of the Universe.

“ which the Blood discharges, crude
 “ and indigested, upon the *Lungs*,
 “ which thickened watery *Lymph*,
 “ either very hastily, or by Degrees,
 “ acquires the highest Degree of
 “ Acrimony. And accordingly, as
 “ all the Blood of the Body passes
 “ through the *Lungs*; therefore,
 “ when it has acquired the Quality
 “ aforesaid, the grumous Part of it
 “ is obstructed in the *Arteries*, and
 “ stops in the Vesicles of the *Lungs*,
 “ and there forms Abscesses in several
 “ Parts of them; and from
 “ hence, Part of this Humour being
 “ absorbed by the reflux Blood,
 “ the Mass becomes farther corrupted,
 “ and that Part of the Humour
 “ which is most sharp and corrosive,
 “ and which forms the Tumours,
 “ at length entirely corrupts
 “ the *Lungs*, and the *Kidnies* also.”

The Authors of the Dictionary
 of *Trevoux* affirm, exclusive of
 other Parts of the Body, “ That
 “ the *Glanders* is a dangerous Disease
 “ ease

“ ease in Horses, and that it is a
 “ malignant, slimy, and bloody
 “ Humour, which proceeds from
 “ ulcerated Lungs, and is dis-
 “ charged by the Nostrils.”

(a) But, being curious to know whether Foreigners entertained a better and more just Idea of the Seat of the Glanders, I procured Inquiries to be made, for such Purpose, by Persons who understood Foreign Languages; and I freely confess, that I had the Satisfaction to find, they were no better acquainted with this Distemper, than my own Countrymen.

(a) The Person *Monf. La Fosse* employed to make the Inquiry, had not been diligent enough to peruse what I have writ relating to the Glanders, in my *Farriery Improved*; if he had, he would have found that we are not quite so ignorant as he would represent us; therefore, his *French* Vanity should not be so puffed up.

We find, in the famous Dictionary of (a) Mr *Chambers*, intitled
Ency-

(a) Mr *Chambers* defines the *Glanders* “ a
 “ filthy Disease in a Horse, consisting in a
 “ running, corrupt, slimy Matter from the
 “ Nose, of a different Colour, according to
 “ the Degree of the Malignity, or as the
 “ Infection has been of a shorter or longer
 “ Continuance; being White, Yellow,
 “ Green, or Black.

“ Authors ascribe it to various Causes;
 “ some to Infection; some to a Disorder of
 “ the Lungs; others to the Spleen; some to
 “ the Liver; and others to the Brain.—
 “ After it has been of so long Standing, that
 “ the Matter is become of a blackish Co-
 “ lour, which is usually in it's last Stage,
 “ they suppose it to come from the *Spine*;
 “ and hence call it the *Mourning of the*
 “ *Chine*.

“ Kernels and Knots are usually felt un-
 “ der the Caul in this Disorder: And, as
 “ these grow bigger and more inflamed, so
 “ the *Glanders* increase more under the
 “ Horse's Body.

“ A late Author is of Opinion, that the
 “ chief Seat of this Distemper is in a little,
 “ soft, spongy Flesh, which is easily dilated
 “ by the least Influx of the Blood: And
 “ thence it is, that some Horses have a
 “ Running

Encyclopædia, under the Article *Glanders*, the Sentiments of the *English* in

“ Running at the Nose from a very flight
 “ Cold ; but, when the spongy Substance
 “ happens to be very much relaxed, the Run-
 “ ning is increased in Proportion.”

This Account of Mr *Chambers* shews he was a good *Compiler* ; only there is one Part of it, *viz.* where he mentions Kernels and Knots under the *Caul*, and the *Glanders* increasing under the Horse's Body ; I say, this is unintelligible Stuff ; for he should have said, that in Proportion as the Glands or Kernels, called the *Sublingual Glands*, which are two in Number, and are situate one on each Side between the lower Jaw, as these Kernels swelled more, the Nose would run more ; and that, if one of them was only swelled, then the Nostril on the same Side would only run.

Whoever looks over my Account of the *Glanders*, in my first Volume of *Farriery Improved*, will find I am of Opinion, that the spongy Bones of the Nose are concerned ; and that *Injections* would conduce much towards the Cure ; so that *Monf. La Fosse* has only made the Improvement of cutting Holes in the Horse's Head, and injecting Liquors by such Means into all the *Sinus's* and Parts affected with the Matter of the *Glanders* ; but then he is short, far short in Under-

in the following Words:—" In the
 " last Stage or Degree of this Dis-
 " ease, when the Matter discharged
 " becomes of a blackish Colour, it
 " is supposed to proceed from the
 " Spinal Marrow, or Marrow in
 " the Back-bone, and from hence
 " it is called (by the *English*) the
 " Mourning of the Chine."

In the new Dictionary of the A-
 cademy of *Madrid*, published in Six
 Volumes, it is said: " That the
 " *Glanders* proceeds from the Brain
 " in the Manner of Catarrhs, or De-
 " fluxions of Rheum from thence."

standing (as are most of the *French* Phyfici-
 ans, Surgeons, and Farriers) with respect to
 the *Virtues* and *Powers* of *Medicines*; for, in
 these Particulars, they are deficient, although
 their Surgeons, we must own, are good at
 the Knife, &c. and diligently study *Anatomy*,
 a Science too much neglected by my Coun-
 trymen; especially the Physicians, who, in
 general, enter into Practice with a meer
 Theory of the Art, and know no more of
 the Machinery of a human Body, than a
 Blacksmith does of a Watch, which I should
 not trust him to repair.

Anatomy

Anatomy demonstrates, that there is no Communication between the Brain and the Nose in human Bodies; and I am able to make it appear, that there is no Communication between those Parts, in the Head of a Horse.

These Ideas of the *Glanders* in Horses, established by celebrated Authors, have been adopted through all *Europe*.

The Learned and the Ignorant, the Gentleman and the Farrier, have been equally misguided; and it is not therefore surprizing, that my Brother Farriers will now scarce believe their own Eyes.

The World indeed may accuse me of Rashness, for my departing from so generally received a Sentiment, relating to the *Glanders*, if I had not been thereunto induced, by

Observations founded upon undoubted Experiments.

The Obstinacy of my Brethren is yet in some Sort excusable; they had been even for two Centuries, (*viz.*) for two hundred Years, in the peaceable and quiet Enjoyment of their Notions of the Glanders, and these Sentiments they found confirmed by great Authorities; therefore, so long as they had only myself to engage, they were resolved not to give up the Cause: But, when my Reasonings were confirmed by the *Royal Academy of Sciences*, that, which before was the Apology of the Obstinate and Opinionated, will now be the Subject of their Condemnation. But I have the Charity to believe, for the Good of the Publick, that their Notions of this Distemper proceeded from Prepossession, more than out of Envy to myself.

It is said, by ingenious and learned Physicians, “ that the Cure of a Dis-
“ ease

“ ease ought never to be founded
 “ upon *Hypotheses*, that is to say,
 “ upon Suppositions forged by the
 “ Imagination, to aid the Memory
 “ in stating *Faëts*, to explain clearly
 “ the Causes and Symptoms of Dis-
 “ eases.”

This, very likely, hath unhap-
 pily been the Case with respect to
 the *Glanders*, and by which Mil-
 lions have been dragged into the
 Highways ; for, while the Publick
 was of Opinion that some of the
Viscera were distempered, and that,
 at last, the Humour was discharged
 by the Nostrils, I say, in Conse-
 quence of this Way of Reasoning,
 they administered (a) *Drenches*; and,
 although

(a) *Drenches* are but of little Service in the
 Cure of the *Glanders*, let them be com-
 pounded of any, or all the Kinds which the
 Author mentions; for, as the Distemper is
 generally occasioned through Want of Cure
 in Surfeits, Colds, &c. the morbid Matter
 is determined towards a Discharge by the
 Nostrils; and is of so sharp, pungent, and
 corrosive

although the Number of *Drenches* is very great, they may be reduced to three Sorts, (*viz.*) either of *Alterants*, to purify the Mass of Blood; or *Sudorifics*, with a View to drive out the Malignity by the Pores of the Skin; or, thirdly, of *Bechic* Pectoral Medicines, in order to cure the distempered *Lungs*.

(a) We have never heard of one Glandered Horse being cured, and indeed

corrosive a Nature, that it affects the Glands, which are innumerable, quite through the *Membrana Pituitaria*, or Pituitary Membrane; and by such Means erodes even the Membrane and the spongy Bones of the Nose; and from hence it is, that oftentimes bloody ichorous Matter, as well as white Corruption, is discharged.

(a) The Author will not allow any Part of the Cause to subsist in the Mass of Blood; but, no doubt, there are Cases, where Respect ought to be had to internal Medicines; for it is with the *Glanders* as with many other Cases in Surgery, *viz.* unless the Practitioner is skilful enough to correct and balmify the Blood and Juices of the Body, he may go on with his *topical* and outward Applications a long Time

indeed it is no Way surprizing, that a Disease is not to be conquered by *Medicines*, which attack an *imaginary Cause*.

It will be found, by perusing the following Sheets, that their Way of Proceeding was by administering *general Remedies*, for the Cure of a *local Evil*; and this has made such terrible Havock amongst *Horses*, that *Brigades* have been dismounted, *Equipages* overthrown, *Stage Coaches* laid by, and many other Evils brought on, which are too tedious to be recounted.

Time to no Purpose; and if he, by good Luck, happen to heal the Breach, yet the Cure seldom lasts long, but the Humours return to, and make their Exit by, the old Drain.

S E C O N D

SECOND PROPOSITION.

(a) *That the true Seat of the Glanders is in the Pituitary Membrane, which lines the Inside of the Nostrils.*

IF the *Phænomena* of this untoward Disease be, with due Attention, considered, and if we make proper Reflections upon the Progress it makes, and what follows thereupon ; it appears that all agree, and with Reason prove, that it's Situation is not in any of the *Viscera*, as the Brain, Lungs, Liver, Spleen, Kidnies, Stomach, Bowels, &c.

(a) The Author should have said, that the true Seat of the Distemper is in the Glands situate in the *Pituitary Membrane*, and not in the Membrane itself ; because Membranes do not seern or separate any Thing from the Blood, it is the Glands that are the Strainers in all and every Part of the *Animal Machine* ; therefore *Monf. La Fosse* might be ignorant of this Kind of Mechanism.

In

In Effect, when a Horse discharges Matter from one Nostril only, the Gland, or Kernel, lying next the Jaw Bone on the same Side, is found tumified and obstructed; but, as soon as the Running is from both Nostrils, the two *Sublingual Glands* under the Jaw Bone are affected.

(a) Therefore, how could this happen, if the Distemperature of the Blood was general? But this

(a) The Blood may acquire a State of Acrimony from Surfeits, Colds, &c. which is capable of producing the Glanders, and yet no *Contagion* be communicated to other Horses; for contagious Distempers have something so peculiar in them, that, I am sure, the Author has not a sufficient Stock of Learning to explain the Matter; if he had, he would readily own, that there are few Distempers contagious, although the Mass of Blood has acquired a proper State to produce some particular Disorders; but this Doctrine will be fully illustrated, in my Commentary on Mr *Snape's* Anatomy, shortly to be published.

may

may be farther illustrated by the Principles of *Contagion*; for, if the Humour, which causes the Glanders, existed in the Blood, before the Running appeared, the Contagion ought to be communicated by *Transpiration*, as in the Case of the Plague and Small-pox.

These kind of Reflections induced me to make farther Inquiries into Glandered Horses; and a strict Scrutiny into the State of the *Viscera*, along with the Help and Assistance of ingenious and expert *Anatomists*, have sufficiently justified my former Suspicions. I dare say, with Truth, that, out of a great Number of Glandered Horses which I have opened, nineteen out of twenty had the *Viscera* either sound, or so little distempered, that there was not the least Reason to disbelieve the Evidence; but I will still go farther, and I dare aver, that if I had found nineteen out of twenty, in which the *Viscera* had been unsound, it could not have
concluded

concluded any Thing against my Argument. It is sufficient for my Purpose, if I find some in which the *Viscera* are found, and yet really Glandered; I say, this convinces me, that the (a) Glanders is not seated in the *Viscera*; nor I think will it convince any Person more

(a) Though the Glanders is not seated in any of the *Viscera*, yet the primary Cause of the Distemper must have begun in the Mass of Blood; and nothing is more common, than that the *morbific Matter* of Fevers, Surfeits, &c. happens to fall on this or that Part of the Body; and, wherever such offending Matter is cast off, and an Abscess formed, the Wound is generally difficult of Cure; thus the Brain and it's Meninges may be affected with a Cold, and the Humours discharged by the Nostrils be so sharp and corrosive, that it erodes and ulcerates the Glands all over the *Pituitary Membrane*, from whence the Glanders proceed; but then again I say, that although the Blood may have purged itself of the offending Matter by the Nose, and that the whole Mass is become good and pure, yet the Ulcers may still remain upon the *Pituitary Membrane*, and occasion the copious Running at the Nose; and thus far the Disease is *local*, according to our Author's Suggestion.

than

than this, *viz.* that a Disease, really and truly seated in the Inside of the Nostrils, was capable of extending itself, and affecting the *Lungs*. Behold now the Seat of the Glanders in Horses discovered, upon the Foundation of Reasoning ; let us try if Experience will confute it.

Having done with the *Viscera*, I pushed my Inquiries into the Head, and the different Dissections I made upon the Heads of Glandered Horses, left me without any Doubt of the Seat of this Disease.

There is a Partition all along the Inside of the Nose, which separates it equally, and makes what we call the two Nostrils ; this Partition is covered with a very soft *Membrane*, which *Anatomists* call *Membrana Pituitaria*, by reason (a) it separates a

(a) The *Membrane* does not separate such viscous Humour, it is the Glands situate in this Membrane that do it, as I have before observed.

viscous,

viscous, slimy Humour, that keeps the Nostrils moist, and preserves the Sense of Smelling. On each Side of this Partition, there are large Cavities, named *Maxillary Sinus's*, which are likewise covered by the aforesaid Membrane; although it's Fibres are in this Part of such a firm and dry Texture, that it doth not seem to separate any of this viscous Humour, being, to all Appearance, destined towards the secretory Organs. This Constructure seems necessary, by reason the inferior and inmost Parts of these *Sinus's* are so deep and winding, that, in whatever Attitude we suppose a Horse's Head, it would not be possible for the *Pituitary Humour*, commonly called *Snot*, to make it's Exit out of them; it is for this Reason, I say (a), that no viscous Humour is discerned or sepa-

(a) This Part of the *Membrana Pituitaria* in Horses is just furnished with Glands sufficient to preserve it pliable and moist, and no more.

rated

rated by the *Pituitary Membrane*, which lines these *Sinus's*.

In the inferior Part of the Head (properly speaking) though above the Orbits of the Eyes, may be observed a Separation of the Tables of the Frontal Bone; these make what is called the *Sinus Frontalis*, which is equally lined by the *Pituitary Membrane*, in the same Manner as the *Sinus Maxillares*.

In opening the Heads of Horses troubled with the (a) Glanders, I have found the *Pituitary Membrane* all corroded with fordid Ulcers; that the Substance of it was become much thicker, and the glanderous Matter appearing all over it's Sur-

(a) This is really the Case with Glandered Horses, when the Discharge becomes of an Ichorous Nature, that is, when the Discharge is inclinable to a brownish Hue, with Blood, &c. mixed along with it; for then, indeed, the Covering of the Capillary Vessels is abraded and wore off, and Blood makes it's Escape at the Extremities of the Ramifications of the Veins and Arteries.

face ;

face ; and, pursuing my Inquiry, I discovered the *Maxillary Sinus's* full of a viscous and slimy Matter ; and, pushing my Knife farther, I found the *Frontal Sinus's* likewise filled with the same kind of Matter ; to which I may add, that the thin Membrane which lines all these *Sinus's*, and in which there are no Blood Vessels to be seen in a sound Horse, was become sensibly thicker, and spread over with a great Number of Blood Vessels, in like Manner as if it had been injected with the most penetrating Injection. Moreover, there were found, in the large void Space in each Nostril, two thin cartilaginous Substances, rolled round themselves in the Form of Cornets or Horns, of which the one is a little higher than the other ; these Parts are also covered with the same kind of Membrane, which serves as a Lining to the *Septum Narium*, or Partition of the Nostrils, as aforesaid ; and here the Surface of it becomes considerably thicker.

For

For the Humour, discharged by the (a) *Pituitary Membrane*, does not even spare the Parts last-mentioned; for, the Seat of the Glanders being in the *Membrana Pituitaria*, or Pituitary Membrane, this Humour affects the said Membrane all along it's Rout; for (b) I have discovered Ulcers, and a good deal of Matter, lying about the said Cornets.

I have herein before spoken of *Glands* under the Jaw Bone, which are obstructed when a Horse is Glandered; these are the *Sublingual Glands*, or Glands under the Tongue, in respect to which, (c) we are to observe

(a) Discharged by the Glands in the Pituitary Membrane, he should have said.

(b) The Glanders affect the *Membrana Pituitaria*, where the Glands in it are largest; such are those in the *Sinus Frontalis*, and upon that Part of the Membrane that spreads itself over the *Septum Narium*, or Division of the two Nostrils.

(c) This is a very proper Observation, and nice Discovery of the Author's; but although the

serve two very remarkable Circumstances, *viz.* *First*, That their excretory or discharging Canals do not pass into the Mouth, as in *Man*; but, on the contrary, turn backwards, and pass behind the Holes of the Nostrils. *Secondly*, That these Glands, which are more anterior than the *Maxillary Glands*, discharge nothing into the Mouth, whilst the latter supply it with all the *Saliva* they produce; it is therefore in such Cases we find an Obstruction and Tumefaction of the *Sublingual Glands*, whilst the *Maxillary Glands* always remain sound.

Before I finish this Article, I must beg Leave to observe, that there are two bony Canals or Pipes, which

the excretory Ducts of these Glands do not proceed as in human Bodies, yet the Mouth of a Horse is sufficiently moistened by Glands, called *Maxillary Glands*; and the innumerable small Glands studded, as it were, all along the Inside of the Cheeks, Lips, &c. within his Mouth.

pass from the Top to the Bottom of the *Maxillary Sinus's*; these serve as a Defence to the superior *Maxillary Nerves* (*a*). Behold therefore the sole Organs in the inferior Part of the Nose, which seem (as it were) a kind of secret Covert for the *Glanders*. And I have sometimes, though but rarely, found the bony Partitions corroded and carious; nevertheless, amongst the great Number of Horses which I have examined, I have not found the least Mark of the Distemper upon these Bones (*b*). In

(*a*) I think the Author has mentioned the *Sinus's* in the Frontal Bone, or Bone of the Forehead; therefore I wonder he should say, *the Organs in the inferior Part of the Nose*, when he has (to my Apprehension) taken in all the Bones and *Sinus's* of the Nose in general, except the *Os Ethmoides*, which I shall speak of hereafter.

(*b*) All the Author would say is this, *viz.* that the soft and spongy Parts within the Nostrils will be corroded and destroyed, before the more firm and bony; but there is no Doubt of it, that the Bones termed *Offa Spongiosa*, from their Texture, must suffer from the Acrimony of the Matter causing the Glanders.

Effect,

Effect, when we consider the Figure, Solidity, and Situation of them, we might reasonably expect, that all the bony Parts in the interior Part of the Nose would be rotten and corrupted, if these Cavities were full of Pus or Matter; in a Word, if they were only affected by the acrid or sharp Matter of the *Glanders*.

(a) Let us only recollect all these Facts into one View, *viz.* the Appearance

(a) I agree with the Author, that the Seat of the Glanders is in the *Pituitary Membrane*, I mean, lastly seated there; but the Cause might probably be a severe Surfeit, or violent Cold; and, as *Nature* unloads the Brain by the Nose, the noxious Humours that are discharged in such Cases, very probably foul the spongy Bones of the Nose; and hence a Number of small Ulcers are formed, which keep a continual Running; insomuch that a Horse troubled with the Glanders is not worth keeping, unless there is a Probability of a Cure, as I think there may, by a proper Injection hereafter set down; for, although it is a commonly re-

pearance of Health, the Durableness of some Glandered Horses, the good and laudable State of the *Viscera*, the Swelling and Ulcers of the *Pituitary Membrane* and the Cornets, the Matter which fills the *Sinus's*, the Obstruction in the Membrane that lines such *Sinus's*, and we may reasonably conclude, that *the Glanders is a local and inflammatory Disease, and that the Seat of it is in the Pituitary Membrane.*

ceived Opinion, *viz.* That, if an old Ulcer is dried up and healed, the Humour will fix on some more noble Part of the Body; I say, though this is a received Opinion, I know from Experience, that large and sordid Ulcers in the Legs of Men and Women may be safely healed, without any Inconveniency afterwards to the Constitution: And this I have very frequently performed upon Ulcers of twenty Years Standing, by topical Applications known to few, very few, Practitioners in our Art; so that when the *Doctor* tells his *Patient*, that he dare not heal up the old Sore for Fear of worse Accidents, he should tell him that the Cure is above his Skill to perform.

Before

Before I enter upon the third Proposition, I apprehend it will be to the Purpose, if I mention an Observation tending farther to illustrate this Matter, *viz.* Since the Time that I began to write upon the Subject, I was consulted about a Horse that discharged a thick and white Humour in Abundance by the Nostrils, and that too for eighteen Months before. When this Horse was at Rest in the Stable, the Running ceased; but then, on the other Hand, I observed a rattling Noise in his Breathing, which indeed ceased as soon as he was put to Work, and the violent Running of the Matter returned; from whence I made the Inference, that this Horse was not Glandered: In fine, I caused him to be killed, and, on opening his Head, I found the *Pituitary Membrane* perfectly sound, and all the interior Parts of the Nose in a good State, neither were there any unnatural Contents within the several Si-

mus's. The *Viscera* in the lower Belly were likewise found, but, upon opening the Breast or middle Venter, I discovered a large Abscess at the Entry of the *Lungs*, in the Place where the *Trachea Arteria*, or Wind-pipe, divides itself into Branches.

(a) It therefore results from this Observation, *First*, That a Horse
may

(a) The Author I believe is a very good Farrier, and his Head seems well turned for the Business; for we ought to distinguish between Matter discharged from an Ulcer of the Lungs, and the Distemper called the Glanders.

Horses cannot cough up Corruption from the *Lungs* as Mankind may do; therefore, in their prone Posture of Body, such Matter runs off by the Nostrils. I say Nostrils, because, if only one Nostril run, then we may be pretty sure that the Disease is not in the Lungs but in the Head: By reason the Matter that comes up the *Trachea Arteria*, or Wind-pipe, from the Lungs, has an equal Chance of entering both Nostrils; and it is very surprising that Men, in general, are so ignorant of the Structure of Animal Bodies;
for

may live and do Business a long Time, with an Abscess in the Lungs, before

for they do not consider, that Medicines swallowed by the Mouth have no Chance of passing to the Lungs, in order to heal any Sore or Ulcer formed there; for the *Epiglottis*, or Cartilage in the Shape of a little Tongue, and comparable to the *Valve* or Flap in a Pump Box, prevents the Aliment from passing down the *Aspera Arteria*, or Wind-pipe, to the Lungs, during the Time of Deglutition or Swallowing; but, when a Person happens to laugh or talk, during the Time he eats or drinks, it often falls out, that some of the Food, or a Crumb of Bread, gets into the Wind-pipe, or rather into a small Cavity at the Side of the Insertion of the *Epiglottis*, with the Cartilaginous Bone called *Thyroides*, at the upper End of the Thropple; I say, when a Crumb of Bread, or, which is frequent, a Piece of a Nut Kernel happens to get into this Cavity, it throws us into violent Fits of Coughing; and the Air forced out of the Lungs passes by it; and therefore it is, that we strain and cough so long in this Case, without being able to remove the Enemy.

Add to this the Difficulty of healing Wounds upon Parts in Motion; for, though it is a Point seldom or never attended to by *Physicians* or *Surgeons*, yet it is of the greatest

before the Matter which passes up the Wind-pipe, is capable of corrupting the Membranes. *Secondly*, That the rattling Noise in the Nostrils, occasioned through the Tumefaction and Swelling of the Glands, and the prodigious Quantity of Matter which flows off, are sufficient to distinguish the present described Distemper from the *Glanders*.

Moment to be considered, *viz.* that *Motion hinders Union*; therefore Wounds on the Joints, Lips, &c. are hard to heal; but the Lungs are worst of all to be managed, not only because Medicines do not pass to them unaltered, but because they are always in Motion, whether the Animal is asleep or awake.

THIRD PROPOSITION.

That the Operation of the Trepan is the best Method, by which to apply proper Remedies for the Cure.

B EING thus assured of the Seat of the Glanders in Horses, I from thence considered of a proper Method of Cure ; and, after a great many Reflections, I concluded in Favour of the *Trepan*, that, by the Help of a Syringe, one might inject proper and convenient Remedies into the Nose. But the first Difficulty that presented itself to me was, whether a Horse could suffer the Operation of the Trepan, without having his Health impaired thereby ; therefore, having fixed upon the most commodious Place to wash away the *Pus* or Matter by Injection, and deterge or cleanse the Ulcers, I performed the Operation

upon a Horse, which discharged only at one of his Nostrils: In this, I only performed it on one Side of the Head, but upon another, which discharged from both Nostrils, I performed it on both Sides the Forehead, and was agreeably surprized to find that these Horses, having Holes cut through their Skulls, shewed all the Signs of Health, agreeable with other Horses; and that the Orifices I had made, had a good Disposition to heal and grow up. *In fine*, the Horse, on which I had performed the Operation on both Sides the Head, being killed about eight and twenty Days after, in leading him to the Highway where he was to lose his Life, he shewed such a Spirit on the Sight of a Mare (*a*), that he covered her twice in a very little Space of Time, about half an Hour before he was killed.

(*a*) This Horse no doubt was of *French* Extraction, he was so mettlesome.

I have

I have since performed the Operation of the *Trepan* upon several Horses, and they have always shewn (a) the same Signs of Health; therefore,

(a) The Author, I believe, might have expressed himself better, than to say the Horses shewed the same Signs of Health with the first he *trepanned*; because I do not suppose they were all of them stoned Horses, therefore they could not shew the same Signs of Health identically.

I have *trepanned* a great many of the human Species for broken and fractured Skulls; and I do not remember any one that died of the Operation, so that the Thing is not so dangerous as some may imagine. I mean this, *viz.* cutting twenty Holes through the Skull with a *Trepan* would neither kill Horse nor Man; therefore, it is the Hurt received upon the Brain before the Use of the *Trepan*, not the *Trepan* or Use of this Instrument, that kills the Patient, if used according to Art; and, as the Author observes, a Horse's Brain does not come so low as his Eyes; so that, in the main, there is no Danger of killing him, by cutting a Hole through the Bone below the Eye, in the Place where the Pipe of the Syringe points out, as in the Copper-Plate may be seen; and, when the Ori-

fore, what Risk do we run in performing it? Or what dangerous Symptoms have we to fear? The bony Box, in which the Brain is contained, is very small, and all that is below the superior Border of the Orbit of the Eye is the Nose.

Hence then we see the Operation of the *Trepan*, in this Case, without Inconvenience established; it only rests that we pursue these Experiments, till such Time as we may find a proper Remedy or *Injection* to conquer this Disease; but, as we ought to take a great deal of Precaution in the Performance of the Operation, and as an exact Knowledge of the interior Part of the Nose is absolutely necessary, I have procured to be engraved, for the Good of the Publick, the two

figs is made there, the Pipe of the Syringe should be directed upwards, in order to inject the Liquor into the *Frontal Sinus's*, and wash out the *Matter* from thence as much as possible.

Cuts

Cuts in the End of this Book, that all the World might be able to make Experiments with Knowledge and Safety.

EXPLANATION of the Two CUTS.

BB. Two Lines representing the Borders or Limits of the *Cerebellum*, or Back-part of the Brain, which is very small in a Horse, in Proportion to that of a Man, as well as that of the Brain itself, which commences from the Line D.

CC. A Line where the superior Part of the *Sinus Frontalis* commences, together with a View of the *Fund*, or Bottom of this *Sinus*, which terminates between the Lines D and E, where there appears a Body or Substance in the Form of a Pear, which Body is hollowed or channelled, and is called the *O*
Ethmoid

Ethmoides (a), or Sieve-like Bone ; and it is through this Bone, that the *Olfactory Nerves* pass, by which the *Pituitary Membrane* receives it's Sensibility, and the Sense of Smelling is performed.

(a) The Author has said in some Part of his Book, that there is no Communication between the Brain and the Nose, either in Horse or Man ; but I imagine, he only means that the Brain is parted from the upper Part of the Nose by Bones, and that therefore there is no Danger in performing the Operation of the *Trepan*, and making a Hole through the Bone into the superior Part of the Nostril ; for, as to a Communication, there most certainly is one ; because there is no other known Way that Humours from the Brain can be discharged, than through the Holes of the Bone called *Os Ethmoides*, or *Os Cribriforme*, from it's Resemblance to a Sieve.

Indeed it is said by some, that the Brain perspires or transudes through the Sutures or Seams in the Skull ; but, although this Doctrine may not be quite false in young Subjects or Bodies, what will such Gentlemen answer in respect to Animals grown old, when the Skull becomes one continued Bone, and the Sutures nearly obliterated ?

E represents the Beginning of the *Maxillary Sinus*, which terminates at M.

The shaded Space which may be observed betwixt these two Lines, represents the great Cavities. The white oblique Ray, marked F, is a bony Partition, which separates this *Sinus* into two Parts which have no Communication; and sometimes it happens (though but rarely) that there are two bony Partitions, and for this Reason they are represented by the Lines marked F and g. It also sometimes happens (but still more seldom) that there are Horses in whose Heads we do not find any of these bony Partitions. I have designedly omitted the Fractuosities of this Sinus, with Intent not to confound a clear View of the Parts.

N points out the Place of the Cornets or Horns. O their Redoublings. P their middle Part. Q the inferior

inferior Part of them. M the bony Canal or Pipe, which covers or guards the *Maxillary Nerve*.

A A. The *Septum Narium*, or Partition which divides the Nose from Top to Bottom, and constitutes the two Nostrils.

(a) L. (in the Head that is entire) represents the Hole made (by the Trepan) into the *Frontal Sinus*, when we have Reason to believe, that by the Violence of the Humour, or the long Duration of the Disease, the *Glanders* is spread into this *Sinus*.

(a) If the Orifice could safely be made at L upon the *Frontal Sinus*, it would be best, though even the *Glanders* had not reached that Part; for the Injection would fall down and wash all the Parts below; but it is very near the Brain, and therefore the Author, upon second Thoughts, has judged it more eligible to perform the Operation a little lower than the Eye, in the Place where the Syringe points to, and inject the Liquor upwards.

Although

Although the Method of performing the Operation of the Trepan (in the Place marked L, as well as in the Place marked E) hath appeared to me very proper, provided the *Frontal* and *Maxillary Sinus's* were choaked up with Matter; I have nevertheless (in the Course of my Operations since the presenting of my new Discoveries to the *Royal Academy of Sciences*) observed, that it would be better done between the Space D and E; and that, in this Case, one Orifice made by the Trepan would be sufficient to wash all the Parts through by *Injection*.

What convinced me that this last Method will be best, was a Trial I made upon two Horses (*a*), supposed

(*a*) I wish the Author had told us how long these Horses had been troubled with a Running at the Nose, and whether he, *bona fide*, looked upon them as Glandered Horses; however, he tells us they were condemned as such, which is a Law they have at *Paris*, that orders all Glandered Horses to be killed.

to

to be Glandered, and as such condemned. They were two Chaise-Horses belonging to the Court, and had been examined by M. *Berard*, Master Surgeon in *Paris*, who had an Interest in these Vehicles. I made the Orifices below the Eyes, and in six Weeks Time, or thereabouts, they were put to do Business, and did not discharge any Matter by the Nose, which gave me Reason to believe they were cured : Moreover, the Holes made by the Trepan were so well healed, that one could scarce discover the Places. The Pipe of the Syringe is to be seen, in the Place where the Trepan should be fixed, to inject the Liquor into the *Maxillary Sinus*, when we have Reason to believe that the *Frontal Sinus* is not affected by the Distemper.

The Letter H (in the Head that is entire) points out the Place where another Hole should be made, as a Drain or common Sewer, to give
Issue

Issue to the *Glanderous Matter* washed away by the Injection, by reason, from the sole Position and Formation of those *Sinus's*, it would never be possible that such Matter should, without this last Orifice was made, be discharged (*a*); therefore we see, that the most specific Injection would, without it, be applied unsuccessfully.

I represents the Injection pushed in by the Syringe, which flows out equally by the Orifice, and the Nostril K; but it is better to hold the Nostrils close, during the Use of the Syringe.

In the *Maxillary Sinus* (instead of one) there sometimes happen to be two bony Partitions; in which Case,

(*a*) This is a good Remark, and the Author has also contrived to pierce through the bony Divisions in the *Maxillary Sinus's*, in order to give Issue to the *Injection* and *Matter* that should wash off through the last-mentioned Orifice.

the

the *Glanderous Matter* would be too long retained in the Cavities: Therefore, it is absolutely necessary to pierce through these bony Partitions, by Means of a *Stillette*, or sharp-pointed Tuck, as in the Manner represented in the Cut of a Horse's Head opened.

Indeed I have but seldom discovered this Conformation of the Parts of the *Maxillary Sinus*, but it suffices that, when it happens, I have directed proper Means to overcome the Obstacle.

Now, as there is a *Lusus Naturæ*, or Sporting of Nature, in Horses as well as other Creatures, and that the bony Partitions are not always of like Constructure and Position, I am obliged to observe in this Case, that where the *Stillette* does not produce the desired Effect, that is, if the *Injection* thrown in by the Syringe, as aforesaid, comes not out at H, then and in such Case, the Li-
quor

quor must be injected upwards, from the Orifice by the Letter H, that it may wash away all the Matter by the Nostrils, and deterge the Ulcers affecting the *Pituitary Membrane*.

(a) We may also do well to observe (in order to prevent the Orifice

(a) The actual Cautery, or hot Iron (applied properly) will prevent a too sudden Healing up of the Wound; because there must be an Exfoliation of the Bone before it will heal; and I also think it will be best to cauterize the fleshy Fibres about the Orifice made by the Trepan, otherwise new Flesh will granulate too fast, and the *Operator* be incommoded in performing a Cure; for it must require a Fortnight, nay a Month sometimes, or more, before a thorough Cure can be effected, though we syringe in the Injection twice, or oftener, in 24 Hours. But as I am writing a Commentary on Mr *Snape's Anatomy of a Horse*, a new Edition of which is designed for the Press very shortly, I beg Leave to defer saying any more upon this Subject, till that most excellent Book, with exceeding curious Cuts, shall appear; and then I hope to shew, how inaccurate and unphilosophical a late Author is, in his Reasonings and Remedies relating to the Diseases, &c. in Horses.

made

made by the *Stillette* from healing and growing up too soon) it will be necessary to *cauterize* the Borders of the Orifice with a hot Iron.

And as in young Horses the *Frontal* and *Maxillary Sinus's* are very small, and that we find the latter almost filled up by the Roots of the Teeth, 'twill be proper to direct the Trepan towards the interior Part of the Nose, in order to make the Drain; otherwise, the Instrument would work upon the Roots of the Teeth, which would be an insurmountable Obstacle.

*An EXTRACT of the Register
of the Royal Academy of
Sciences, of the 7th of June,
1749.*

WE have (by Order of the Academy) examined a Memorial of the Glanders in Horses, relating to the Seat of that Disease, written by Mons. *La Fosse*, Farrier of *Paris*, and also of the King's Stables.

The Inquiries of the Author turn chiefly upon two Points, which he proposes to set in a true Light, *viz.*

First, Where is the true Seat of the Glanders?

Secondly, What is the best Method of Cure?

It

It is to be observed, that all former *Authors* in the Medicinal Way, and all the *Farriers* to this Time, are of Opinion, that the Seat of the Glanders in Horses is in one or other of the *Viscera*, or in several of them together, such as the *Lungs*, the Heart, the Liver, the *Spleen*, or Milt, the Kidnies, &c. but if these *Viscera* were affected (as *Monf. La Fosse* with a great deal of Foundation argues) could such Horses preserve their Appetite, their good Appearance; their Hair sleek and shining, and, in a Word, all the Signs of Health for many Years together? This reasonable Suspicion prevailed with *Monf. La Fosse*, for more than ten Years past, in searching and examining into the *Viscera* of Glandered Horses, and his Observations, continued to this present Time, with a great deal of Exactness, have plainly justified such his Suspicion; that is to say, he has discovered all the *Viscera*, as well those within
the

the Chest of the Body, as in the lower Belly, of Horses that were very ill in the *Glanders*, exceeding found.

This was without Doubt sufficient to destroy the commonly received Opinion, but it being necessary for him to shew what Part, or Parts, of the Body were affected by the *Glanders*, he hath found, in examining the *Frontal* and *Maxillary Sinus's*, and other Parts within the Nostrils, that these Cavities are filled, sometimes more, sometimes less, with *Matter* of a thick Consistence; furthermore, the *Pituitary Membrane* inflamed, and consequently much augmented in Thickness: That this *Membrane* was more or less affected with *sanious Ulcers*, which, in some Cases, had corroded through the Substance of it to the very Bones. That, when Horses discharged *Matter* from both Nostrils, both Sides of the *Membrane* were affected; and that, when they

D

only

only ran at one Nostril, that Side only of the *Membrane* was found distempered.

In like Manner he constantly observed an Agreement between the Obstruction of the *Sublingual Glands*, or Glands under the Jaws, and the Affection of the aforesaid *Membrane*; that is to say, if one of these *Glands* only was obstructed, then the Horse discharged *Matter* only by one of his Nostrils: But on the contrary, if both the *Glands* were affected, *Matter* should be discharged by both Nostrils.

From these last Observations, compared with those which constitute or shew a good State of the *Viscera*, one may reasonably conclude, with Mons. *La Fosse*, that the *Glanders* does not depend upon a general Distemperature of the Blood, but that it is really and truly a *simple* and *local Malady*.

This

This being admitted, the Method of Cure ought to turn upon *Topical Remedies*, applied directly to the Part affected, and not upon general Methods and Remedies, such as *Bleeding, Drenches, &c.* for a long Time practised, with as little Foundation as Success.

Monf. *La Fosse* therefore hath paved out the Way, by the Help of the Instrument called the Trepan, to (a) inject proper Tinctures, &c.
into

(a) The Injection most proper, in my Opinion, will be the following, *viz.*

“ Take of Alom and white Vitriol powdered of each four Ounces, and calcine or
“ burn them together in a Crucible, or upon a large Plate of Iron, or in an Earthen
“ Pot that will abide the Fire, till the Matter is red hot, and the Fusion or Melting
“ ceases; then powder the Calx, and mix it
“ with a Gallon of Lime-water, and a Quart
“ of Wine Vinegar (either Red or White
“ will do) and keep it for Use.”

It will precipitate or settle to be very clear, and the clear Part only need be injected

into the Head, as well for washing away the corrupted *Matter*, as for deterging and cicatrizing the Ulcers in the *Pituitary Membrane*.

Out of three Horses, upon which he had performed his Experiment, two of them discharged from one Nostril only, and the third discharged *Matter* from both. He trepanned the two first upon that Side of the Head which was affected, and on the other he performed it on both Sides.

warm, by the Help of a large Pewter Syringe for the Purpose; or, for Want of that, one made of Wood, I think, might do, if it would contain about half a Pint of the Liquor, the Quantity that should be thrown up each Time; and, if the *Sinus's* were washed with common Malt or Molasses Spirit warm, once in two Days, it might answer: For whatever *Injection* is deterfive and healing, and resists Putrefaction, will be good in this Case; notwithstanding Mons. *La Fosse* may imagine, he yet has this Part of the Cure within his own Breast.

The

The Design of these Operations was not (as the Author himself confesses) in order to perform a Cure upon the three Horses, but only to try whether a Perforation or Hole might be made by the Trepan, into the *Frontal* and *Maxillary Sinus's*, without Danger; and he observed (six and twenty Days after the Operation) that the Horses were not disordered by it, and that the Wounds filled up with good Flesh, and promised a speedy Cicatrization; but these poor Creatures were, after the Experiment, knocked on the Head.

The Directions and Orders of the Civil Government, preventing People from keeping *Glandered Horses* long, have hindered *Monf. La Fosse* from repeating his Attempts, and pushing his Experiments further.

We must nevertheless assure the Public, that the Observations which

he hath made, as well for overthrowing the ancient Opinion, as for the Discovery of the true Seat of this Disease, are very reconcilable to right Reason; and we ourselves have seen, in the Opening and Dissections of several *Glandered Horses*, the Justification of all the *Facts* advanced in his Memorial.

The Project for the Cure of it appears to us very well conceived, and the Views of the Author, with Respect thereto, would (if he had had Opportunity) have been of very great Use and Benefit.

In Fine, The Work of Mons. *La Fosse* bespeaks him a Man of Knowledge and Sagacity, and it is very much to be wished he might have the Liberty of the Civil Government procured, so as that he might pursue his Project in it's largest Extent and Latitude.

Signed

BOVART and HERISSANT.

I Certify

I Certify that the present *Extract* is conformable to the *Original*, and with the *Judgment* and *Opinion* of the *Academy* at *Paris*.

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Signed

GRANDJEAN DE FOUCHY,

Perpetual Secretary to the *Academy of Sciences*.

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